

In the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1 1. (Currently Amended) A hydrodynamic suturing instrument, comprising in
2 combination:
 - 3 a syringe having a barrel and plunger and a connector for detachably
4 mounting a needle,
5 the barrel having a capacity to receive a predetermined size and length of
6 suture and sufficient fluid to draw the suture into the barrel and to expel the
7 suture from the barrel,
8 said syringe defining a hydraulic path and said plunger being mounted to act
9 on the hydraulic path to draw the suture into the syringe;
10 an elongated cannulated suturing needle having a proximal end and a distal
11 end, said needle comprising a lumen of a size to receive said predetermined
12 size and length of suture extending from said proximal end to an opening at
13 said distal end for the passage of a suture,
14 a connector at said proximal end adapted to connect to said syringe barrel
15 connector and said distal end configured to pass with a suture through tissue;
16 and
17 said distal end configured with a sharp point extending forward of said
18 opening to said lumen, said opening further comprising a trailing edge, said
19 opening configured to receive a suture extending from said lumen along an

20 outer surface of said needle wherein said sharp point extends forward of said
21 suture.

1 2. (Original) A suturing instrument according to claim 1 wherein said needle has a
2 curved configuration at said distal end.

3 3. (Original) A suturing instrument according to claim 2 wherein said curved
2 configuration is a cork screw configuration.

1 4. (Original) A suturing instrument according to claim 2 wherein said curved
2 configuration is a hook configuration.

1 5. (Previously Presented) A suturing instrument according to claim 1 wherein said
2 opening at said distal end is at a side of said cannula and the trailing edge of said
3 opening is rounded.

1 6. (Original) A suturing instrument according to claim 5 wherein curved configuration
2 is a cork screw configuration.

1 7. (Original) A suturing instrument according to claim 5 wherein said curved
2 configuration is a hook configuration.

1 8. (Previously Presented) A suturing instrument according to claim 1 further
2 comprising a stiffening cover over a major portion of said needle.

1 9. (Original) A suturing instrument according to claim 1 further comprising: a forceps
2 having a distal end with jaws and a proximal end with a lever to operate at least one
3 of said jaws and a lumen extending from said proximal end to said distal end for

4 passage of said needle; and said jaws having an opening enabling passage of said
5 needle through tissue grasped in said jaws.

1 10. (Original) A suturing instrument according to claim 9 wherein said needle is
2 curved.

3 11. (Original) A suturing instrument according to claim 10 wherein said lumen has an
2 oval configuration to aid in orienting said needle.

3 12. (Original) A suturing instrument comprising:

2 an elongate tubular member having a distal end and a proximal end and a
3 passage extending from said proximal end to said distal end;

4 first and second jaws on said distal end disposed in opposed relation, one of
5 said first and second jaws being moveable relative to the other and having an
6 opening therethrough, the other of said first and second jaws including an
7 open end of said passage oriented toward said opening;

8 means at said proximal end for moving said moveable jaw between open and
9 closed positions;

10 a syringe having a needle, the needle of sufficient length to extend a forward
11 end thereof through said passage past said open end and through said
12 opening in said one of said jaws, the needle having a cannula with a lumen of
13 sufficient size to receive a suture, a distal end of said needle configured with a
14 sharp point extending forward of an opening to said lumen, said distal end
15 further comprising a trailing edge; and

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18 said syringe having sufficient capacity to draw a predetermined length of
19 suture and liquid into said needle and expel said suture through said opening.

20 13. (Original) A suturing instrument according to claim 12 wherein said needle has a
2 curved configuration at said forward end.

3 14. (Previously Presented) A suturing instrument according to claim 13 wherein said
2 cannula has an oval configuration to aid in orienting said needle.

3 15. (Currently Amended) A method of suturing comprising the steps of:

2 providing an elongate needle having a distal end and a proximal end and a
3 lumen extending from said proximal end to said distal end having sufficient
4 size for passage of a predetermined size suture, said distal end having a tip
5 configured with a sharp point extending forward of an opening of said lumen
6 for passage with a suture through a tissue, said opening further comprising a
7 trailing edge;

8 providing a syringe detachably connected to said needle proximal end;
9 selecting and introducing a length of suture into at least said needle from
10 outside of said syringe and said needle;

11 filling said syringe with a quantity of liquid;

12 passing said distal end of said needle with said suture through a tissue to be
13 sutured with the suture folded over the trailing edge; and

14 expelling said length of suture from said distal end of said needle by hydraulic
15 force from a quantity of said liquid in said syringe.

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1 16. (Original) A method of suturing according to claim 15 wherein said step of
2 selecting and introducing a length of suture into at least said needle comprises:
3 inserting an end of said suture into said distal end of said needle; submerging said
4 distal end of said needle with said suture in a quantity of liquid; and drawing said
5 length of suture and a quantity of liquid into said needle with said syringe.

6 17. (Original) A method of suturing according to claim 16 wherein said needle is
2 provided to have a curved configuration at said distal end.

3 18. (Original) A method of suturing according to claim 15 wherein said needle is
2 provided to have a stiffening cover over a major portion of said needle.

3 19. (Original) A method of suturing according to claim 15 further comprising the
2 steps of:

3 providing an elongate tubular member having a distal end and a proximal end
4 and a passage extending from said proximal end to said distal end, first and
5 second jaws on said distal end disposed in opposed relation, one of said first
6 and second jaws being moveable relative to the other and having an opening
7 there through, the other of said first and second jaws including an open end of
8 said passage oriented toward said opening, and means at said proximal end
9 for moving said moveable jaw between open and closed positions;

10 providing said elongate needle of sufficient length to extend said distal end
11 thereof through said passage past said open end and through said opening in
12 said one of said jaws; and grasping a tissue to be sutured between said first
13 and second jaws; and

14 extending a said distal end thereof through said passage past said open end
15 through said tissue and through said opening in said one of said jaws.

16 20. (Original) A method of suturing according to claim 19 wherein said needle is
2 provided to have a curved configuration at said distal end; and said passage having
3 an oval configuration to accommodate and maintain said curved needle oriented.